

CLAIMS

1. In a self-erecting, inflatable thermal blanket
for covering and bathing a person in a thermally-controlled
inflating medium, the improvement comprising:

a flexible base sheet having a head end, a foot
end, two edges, and a plurality of apertures;

an overlaying flexible material sheet attached to
a first surface of said base sheet by a plurality of
discontinuous seams which form said overlaying
material sheet into a plurality of communicating,
inflatable chambers, said apertures opening through
said base sheet into said chambers;

a continuous seam between said overlaying
material sheet and said base sheet near said head end
which closes ends of said inflatable chambers;

a non-inflatable section of said thermal
blanket extending substantially between said
continuous seam and said head end and including
an end portion of said flexible sheet; and

said thermal blanket being sized to
extend from a patient's pelvic and groin area to
the patient's feet.

2. The improvement of claim 1 further including a
non-inflatable foot drape.

3. The improvement of claim 1 further including an
adhesive strip at said head end to adhere said head end to
a patient and prevent migration of air towards a care site.

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2 4. In a self-erecting, inflatable thermal blanket
for covering and bathing a person in a thermally-controlled
inflating medium, the improvement comprising:

4 a flexible base sheet having a head end, a foot
end, two edges, and a plurality of apertures;

6 an overlaying flexible material sheet attached to
a first surface of said base sheet by a plurality of
8 discontinuous seams which form said overlaying
material sheet into a plurality of communicating,
10 inflatable chambers, said apertures opening through
said base sheet into said chambers;

2 a continuous seam between said overlaying
material sheet and said base sheet near said head end
4 which closes ends of said inflatable chambers;

6 a non-inflatable section of said thermal blanket
extending substantially between said continuous seam
and said head end and including an end portion of
8 said flexible sheet; and

10 said thermal blanket being sized to extend from a
patient's neck to the patient's upper torso and to
cover the patient's arms and shoulders.

2 5. The improvement of claim 4 further including a
flat uninflatable section at said foot end.

2 6. The improvement of claim 4 further including an
adhesive strip at said foot end to adhere said foot end to
a patient and prevent migration of air towards a care site.

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2 7. The improvement of claim 4 further including a
head drape at said head end to drape over a patient's head
and a vent for directing heated air under said head drape.

2 8. An inflatable thermal blanket for convectively
controlling the temperature of a human body, comprising:

4 a self-erecting inflatable covering with a head
end, a foot end, two edges, and an undersurface;

6 an inflating inlet for admitting a
thermally-controlled inflating medium into said
covering;

8 an array of apertures in said undersurface for
exhausting a thermally controlled inflating medium
from said covering to said undersurface;

10 means in said inflatable covering for equalizing
the temperature of a thermally controlled inflating
medium in said inflatable covering by circulating said
inflating medium toward said two edges;

12 an uninflatable extension in said inflatable
covering at said head end; and

14 said thermal blanket being sized to extend
16 from a patient's pelvic and groin area to the
18 patient's feet.

2 9. The thermal blanket of claim 8 further including
a non-inflatable foot drape.

2 10. The thermal blanket of claim 8 further including
an adhesive strip at said head end to adhere said head end
4 to a patient and prevent migration of air towards a care
site.

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11. An inflatable thermal blanket for convectively
controlling the temperature of a human body, comprising:

a self-erecting inflatable covering with a head
end, a foot end, two edges, and an undersurface;

an inflating inlet for admitting a
thermally-controlled inflating medium into said
covering;

an array of apertures in said undersurface for
exhausting a thermally controlled inflating medium
from said covering to said undersurface;

means in said inflatable covering for equalizing
the temperature of a thermally controlled inflating
medium in said inflatable covering by circulating said
inflating medium toward said two edges;

an uninflatable extension in said inflatable
covering at said head end; and

said blanket being sized to extend from a
patient's neck to the patient's upper torso and
to cover the patient's arms and shoulders.

12. The thermal blanket of claim 11 further including
a flat uninflatable section of said foot end.

13. The improvement of claim 11 further including an
adhesive strip at said foot end to adhere said foot end to
a patient and prevent migration of air towards a care site.

14. The improvement of claim 11 further including a
head drape at said head end to drape over a patient's head
and a vent for directing heated air under said head drape.

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15. In a self-erecting, inflatable thermal blanket for covering and bathing a person in a thermally-controlled inflating medium, the improvement comprising:

a flexible base sheet having a head end, a foot end, two edges, and a plurality of apertures;

an overlaying flexible material sheet attached to a first surface of said base sheet by a plurality of discontinuous seams which form said overlaying material sheet into a plurality of communicating, inflatable chambers, said apertures opening through said base sheet into said chambers;

a continuous seam between said overlaying material sheet and said base sheet near said head end which closes ends of said inflatable chambers;

a non-inflatable section of said thermal blanket extending substantially between said continuous seam and said head end and including an end portion of said flexible sheet; and

a flexible heater hose attached to said thermal blanket to provide heated air to said inflatable chambers, said flexible heater hose including a protective sleeve slideably disposed thereon to prevent hose contact with a patient.

16. An inflatable thermal blanket for convectively controlling the temperature of a human body, comprising:

a self-erecting inflatable covering with a head end, a foot end, two edges, and an undersurface;

an inflating inlet for admitting a thermally-controlled inflating medium into said covering;

8 an array of apertures in said undersurface for
0 exhausting a thermally controlled inflating medium
2 from said covering to said undersurface;

4 means in said inflatable covering for equalizing
6 the temperature of a thermally controlled inflating
8 medium in said inflatable covering by circulating said
0 inflating medium toward said two edges;

2 an uninflatable extension in said inflatable
4 covering at said head end; and

6 a flexible heater hose attached to said
8 thermal blanket to provide heated air to said
0 inflatable chambers, said flexible heater hose
2 including a protective sleeve slideably disposed
4 thereon to prevent hose contact with a patient.

17. A method for thermally warming a selected portion
2 or portions of a patient for rendering care to other
4 portions of the patient, comprising the steps of:

6 selecting one or more inflatable thermal
8 blankets sized to cover a portion or portions of
0 a patient to be thermally warmed so that care may
2 be administered to other portions of the
4 patient, said inflatable thermal blanket(s)
6 being of a type that comprise(s):

8 a self-erecting inflatable covering with a head
0 end, a foot end, two edges, and an undersurface; and

2 an inflating inlet for admitting a
4 thermally-controlled inflating medium into said
6 covering;

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an array of apertures in said undersurface for exhausting a thermally controlled inflating medium from said covering to said undersurface;

means in said inflatable covering for equalizing the temperature of a thermally controlled inflating medium in said inflatable covering by circulating said inflating medium toward said two edges;

an uninflatable extension in said inflatable covering at said head end or said foot end; and

an adhesive strip at said head end or said foot end having an adhesive portion facing in the direction of said thermal blanket undersurface and a removable backing covering said adhesive portion;

said method further comprising the steps of:

placing the thermal blanket(s) over the portion(s) of the patient to be thermally warmed such that the adhesive portion of said blanket(s) is oriented toward a care site;

removing the backing from said adhesive portion and adhering the adhesive to the patient to prevent the migration of air towards a care site;

attaching a heating tube or tubes from a heating unit to said thermal blanket(s);

selecting an appropriate temperature and activating the heating unit; and

monitoring the patient's temperature regularly and adjusting the heating unit temperature as required by the patient's temperature.

18. The method of claim 17 wherein the area(s) of a patient to be covered include(s) the area extending from the patient's pelvic and groin area to the patient's feet.

19. The method of claim 18 wherein said thermal blanket extends from the patient's pelvic and groin area to the patient's feet and wherein the adhesive portion of said thermal blanket is adhered to the patient above the patient's pelvic and groin area.

20. The method of claim 19 further including the step of placing a protective sleeve over the heater tube adjacent said thermal blanket to prevent the heater tube from contacting the patient.

21. The method of claim 17 wherein the area(s) of a patient to be covered include(s) the area extending from the patient's neck area to the patient's chest and including the patient's arms.

22. The method of claim 21 wherein said thermal blanket extends from the patient's neck area to the patient's chest and also covers the patient's arms and wherein the adhesive portion of said thermal blanket is adhered to the patient's chest.

23. The method of claim 22 further including the step of adhering a head drape on or near said head end of said thermal blanket and draping the head drape loosely over the patient's head.

2 24. The method of claim 17 further including the step
of draping a conventional blanket or blankets over said
thermal blanket(s).

2 25. A thermal care system for thermally warming a
patient comprising:

4 an inflatable thermal blanket having at least one
inflatable chamber therein and an air inlet for
admitting air to said chamber;

6 a heater/blower assembly providing a source of
heated air;

8 a heater tube extending from said heater/blower
assembly to said thermal blanket air inlet; and

0 a protective sleeve slideably disposed over said
heater tube adjacent said thermal blanket air inlet to
prevent said heater tube from contacting the patient.
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